

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/012071

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ H01M8/04, H01M8/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ H01M8/04, H01M8/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004
Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPI/L

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 58-186170 A (Hitachi, Ltd.), 31 October, 1983 (31.10.83), Claims; page 3, upper left column, line 12 to upper right column, line 16; Figs. 1 to 2 & US 4493878 A Column 2, line 39 to column 3, line 2; Figs. 1 to 2; Claims	1,11 2,5,6,9
Y	JP 61-107666 A (Hitachi, Ltd.), 26 May, 1986 (26.05.86), Claims; Fig. 1 & US 4629664 A Fig. 6; Claims	2,5,6,9

Further documents are listed in the continuation of Box C.

See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
05 October, 2004 (05.10.04)

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19 October, 2004 (19.10.04)

Name and mailing address of the ISA/
Japanese Patent Office

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PCT/JP2004/012071

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 5-24557 U (Toppan Printing Co., Ltd.), 30 March, 1993 (30.03.93), Claims; Figs. 1 to 2 (Family: none)	5, 6, 9
A	JP 2001-283888 A (Toshiba Corp.), 12 October, 2001 (12.10.01), Claims; Fig. 1 (Family: none)	1-12
A	JP 2000-314376 A (Mannesmann AG.), 14 November, 2000 (14.11.00), Claims; Fig. 1 & US 6610433 B1 Fig. 1; Claims	1-12